

Mr. Average Motorist— 1960 Model*

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Mr. Average Motorist is a young middle-aged man. He's the head of a family with two youngsters, one of driving age. Already I'm disqualified because I have more than that number of grandchildren.

He drives a used, not a new, car. He bought it, or is still buying it, on credit. His income is \$5,500 a year.

He lives in a suburb and drives $6\frac{1}{2}$ miles to work. If he has more than one car—and about 15 out of every 100 families now do—his wife uses the second car to do her shopping and she averages about four miles in doing it.

These two uses make up two-thirds of the total daily use of the car. The remainder includes all of the normal activities of a typical American family—a trip to the movies, schools, church, hospital, and golf course, and social calls.

Once a year Mr. Average Motorist and his family pile into the family sedan and go on a vacation trip averaging around 550 miles.

On the open road, Mr. A. M. will average 53 miles per hour on straight stretches in light traffic (back in the early twenties he was lucky to be able to go 26 miles an hour).

To maintain today's average he will travel over 55 miles an hour better than one-third of the time and 60 miles one-fifth of the time. The buses he meets will be going about a mile an hour faster than he is, while the trucks will average about six miles an hour slower.

He'll exceed the speed limit at one time or another, and nowadays he'll drive at about the same speed in the other fellow's state as he does in his own. He used to go faster. Maybe better enforcement has pulled him down. He's less likely to be involved in an accident in another state than he is in his own. Familiarity breeds contempt, as they say.

When he can't go at least 45 miles an hour, our man considers the highway inadequate for his needs whether it be poor alignment or

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density of traffic which pulls him down. At times he will travel more slowly on a four-lane divided freeway than he does on a main road with intersections because he is likely to be more interested in maintaining an average speed than in breaking records.

At home or abroad, most of his travel will be in daylight, which is lucky because night driving is far more hazardous, especially between 2 and 4 a.m., when he's likely to be returning from some social whinging.

He travels just as fast at night as he does in the daytime except that he slows down somewhat when approaching another car.

When he is traveling on a downtown city street, his average speed at peak times will be ten miles an hour or less. He will get 15 miles an hour in those lessening periods when traffic is not so heavy. In the intermediate and outlying areas of the city he will average from 20 to 25 miles an hour, depending upon the time of the day.

Half of his driving time at peak hours in the inner city will be spent standing behind a red light or a long queue of vehicles.

The striking fact about that statement is that where he has free-ways—divided, limited access roads—he can travel safely at double the rates of speed over city streets; and when he does, the economic influence of the community he lives in is quadrupled.

But typically at this time, that's one of the limitations which determines how far away he can live from his place of employment and that limitation is one of the major influences upon the development of every community in this country.

Now that we have identified Mr. and Mrs. Average Motorist and seen what they do with their cars, let's take a look at how well they do it. In other words, how safe drivers are they?

Reading the press and listening to reports from other media, one might ascribe all the sins in the driving calendar to him. We tend to forget that an accident which is always bad news, is the exception.

Mr. Average Motorist will not have more than one accident in five years. The grim chance of meeting death while driving is about one in 4,000 in any driving year. The chance of injury is about one in 100.

To put it another and more palatable way, Mr. Average Motorist has the chance of being involved in a property damage accident once in five years, in an accident in which someone is hurt once in 25 years. He would have to drive 1,500 years before being involved in a fatal accident.

Where in 1937 there were some 15 deaths per 100 million miles of traffic, today there are slightly more than five, about the lowest rate since automobiling began. That record has been made by Mr. Average Motorist in the face of mounting exposure every year due to increasing traffic and lagging highway construction.

For each accident he is involved in, the average cost per vehicle is \$100. Actually, no valid statistics yet exist on the causes of accidents. Too often the purpose of looking into causes is to win a lawsuit rather than to prevent a future mishap. The best records obtainable put heavy emphasis on speeding and driving while drunk. Contrary to a lot of impressions, Mr. Average Motorist does not drive while drunk.

There are no statistics to show how often Mr. A. M. meets with an accident because he is late to supper or because impatient, he cuts out of a long queue line headed by a slow-moving car on an inadequate highway. We do know that low horsepower cars are more likely to be involved in accidents on rural highways.

Nor are there sufficient data to show precisely to what extent defects in either highway design or highway markings are causing loss of life, limb, and property on the highway. The same can be said about cars.

But the evidence does show that Mr. and Mrs. A. M. don't go out on the highway to have an accident or to kill someone. Instead they are constantly bettering their own records.

Unfortunately we can't yet say that their teenage child is as good a driver as they are because thus far only about one out of every four schools has driving instruction. The number is growing, however, and parents are doing a better job with their youngsters than they used to.

Now what does Mr. Average Motorist want from the road officials who are charged with supplying him with proper facilities for his safe and comfortable use of the road?

First of all, he doesn't know or care what particular part of the road system he may be traveling on. All he knows is that he wants to get from Point A to Point B quickly and safely. He doesn't really give a hoot whether he's on an interstate road or a farm to market piece as long as it gets him where he wants to go. Of course, he'd like to have good signs to aid him.

How good a job is being done in keeping him supplied with such roads? He probably couldn't answer statistically, but I can from figures supplied by the government and the automotive industry.

We now have one vehicle for every 525 feet of all lanes in all of 3,500,000 miles of streets and roads in the United States. Incidentally, most of A. M.'s driving is done in the metropolitan areas or on some part of the 800,000 miles of road which comprise the federal aid interstate, primary, farm to market, and urban highways. That statement in itself is enough to explain why he spends so much of his time in traffic jams.

Here's another fact to ponder on. Since World War II, we have added 163,000 miles of highway to our total road system. In the same period, car manufacturers have turned out 264,000 miles of motor vehicles, bumper to bumper.

There's no present evidence that car manufacturers have decided to go out of business. Instead, as people spread out they buy more cars per family.

That brings us down to the question of how Mr. Average Motorist is paying for these roads—and he definitely is paying for those which he uses most.

Today, his average tax is about \$103 a year—which, in passing, is still less than the cost of his insurance. Breaking that figure down, he pays on the average \$14 for his state registration tax; \$38 for his state gasoline tax; \$5 for local taxes and tolls; and \$46 for federal taxes on gas, oil, repair parts, etc.

What road improvement can do to cut his costs is almost unbelievable. If accidents could be cut in half (and freeways are at least twice as safe as other roads) the saving would be \$50, or the equivalent of a gas tax of six cents per gallon.

Experts tell us that fuel, tire, and brake costs total on the average $1\frac{1}{4}$ cents per mile more on congested surface roads than on free-flowing expressways. That equals a 19-cent gas tax.

There are many other illustrations of lowered costs growing out of highway improvements—all of them important to Mr. Average Motorist whose annual income, as already cited, doesn't permit him too many luxuries.

Trying to look at this problem then through the eyes of Mr. Average Motorist, who turns out to be a reasonable character, whose chief use of his car is to bring up the standard of living for himself and his family, certain conclusions begin to emerge.

I suggest you check what I am saying against your experience.

1. In the light of his income bracket, as well as from the human point of view, Mr. A. M. has to have roads built to standards adequate

to permit him to move safely, comfortably, and at the lowest possible cost.

2. His major pattern of road use is dictated by the necessities of everyday life, not by his vacation schedule. Since he lives everywhere, his shuttle use of the road or street quickly develops into a series of short distance movements which add up to interstate and transcontinental roads. Yet, Mr. A. M. is still using them largely for his daily pursuits.

3. Equally, in metropolitan areas, he and the Mrs. develop well-marked lines of travel either for business, shopping, or social purposes. When they go into the heart of the city, which Mrs. A. M. does less frequently now, they want to choose their own way of getting there. If they drive, they want parking areas reasonably close to their destination and reasonably priced. Alternatively, mass transportation must meet their ideas of cost and service. No effort to impose artificial restraints can be successful. While the working man might have to accept restraints, his wife won't and she's the one on whose buying habits the future characteristics of our downtown areas depends. The basic fact is that the motor vehicle gives the individual the freedom to travel where and when he wants to.

4. The facts that his income is limited and that his travel pattern is based on short-distance trips indicate the long-range fallacy of any effort to impose tolls on any sections except those where natural bottlenecks create a monopoly. No roads are free roads today. Super toll roads require freedom from competition to maintain their rates under normal conditions. Mr. Average Motorist simply can't afford to use toll roads every day nor can authorities finally refuse to give him competitive so-called "free roads" when he is paying for them.

Finally, Mr. and Mrs. Average Motorist want to feel that there is a place to drive to in the country where they will be able to get a breath of fresh air and view the scenery without being faced on all sides by flashing neon lights, billboards, or any of the other impediments that have been cluttering up our rural highways.

What does all this mean? Well, to me it means that the automobile has brought us vast opportunities for new and better ways of living. At the same time it has brought with it vast dislocations. Roads must be built where the traffic is. That means land must be taken. It means personal sacrifice to individuals and to forms of business. Roads must be paid for. That means bitter criticism, letters to Congress, and a demand for slow-down, even though benefits far

exceed costs and a slow-down simply means greater loss of life and more accidents.

It is to be expected that all the forces of the status quo will resist changes. They always have. So we have investigations, charges of fraud, and efforts to shift the control over road construction from competent highway engineers to political forces. That's not the way we got the finest roads the world has ever seen. But it's all a part of the never-ending process of technology.

One thing it brings with it is a clear need for more research, more education, and better public understanding of what this means to each one of us.

At a moment in history when mentally we must keep our heads in the clouds if we are to meet our destiny, it is well to remember that physically our feet are on the ground. And we don't want them in the mud.

It is on this earth that we live out our mortal span. It is from this earth that we draw our daily sustenance. It is in this earth that we find final repose.

That means, then, that highway research must not be neglected with all that it means to the betterment of our daily way of living or making a living. All of us owe much to those dedicated men who, in the fields, the laboratories, and the classrooms, are laboring day to day to make life better for all of us.

Finally, we must bridge the gap between the scientific mind and the layman. That is the job you are doing; that others like you are doing all over the land.

After all, transportation is only a tool. Let us never forget that the final objective is one of making our country a better place for all of us.